REMARKS

In the final Office Action, the Examiner rejects claims 2-4, 7, 8, 10, 12, 17, 18, 20-22, 24, 26, 27, 43, 44, and 46-54 under 35 U.S.C. § 103(a) as unpatentable over SCHUSTER et al. (U.S. Patent No. 6,512,761) in view of AKAHANE et al. (U.S. Patent Application Publication No. 2004/0010617); and rejects claims 5, 19, and 45 under 35 U.S.C. § 103(a) as unpatentable over SCHUSTER et al. in view of AKAHANE et al., and in further view of KAFFINE et al. (U.S. Patent No. 6,654,914). Applicant respectfully traverses these rejections.

By way of the present amendment, Applicant proposes amending claims 2, 3, 5, 7, 8, 10, 12, 17, 27, 43, 46-48, and 50-52 to improve form. No new matter has been added by way of the present amendment. Claims 2-5, 7, 8, 10, 12, 17-22, 24, 26, 27, and 43-54 remain pending.

Rejection under 35 U.S.C. § 103(a) based on SCHUSTER et al. and AKAHANE et al.

Claims 2-4, 7, 8, 10, 12, 17, 18, 20-22, 24, 26, 27, 43, 44, and 46-54 stand rejected under 35 U.S.C. § 103(a) as allegedly unpatentable over SCHUSTER et al. in view of AKAHANE et al. Applicant respectfully traverses this rejection.

Independent claim 43, amended as proposed, is directed to a method that includes establishing, by a network device, a plurality of paths in a network; sending, by the network device, a plurality of reflector packets on each of the plurality of paths, where the plurality of reflector packets include a first type of packet used to determine timing-related information and a second type of packet used to perform at least one control-related function; receiving, by the network device, responses on each of the plurality of paths in response to the plurality of reflector packets; analyzing, by the network device, response times associated with the responses to the first type of packets; analyzing, by the network device, the responses to the second type of packets to determine a state of network resources; selecting, by the network device, one of the plurality of paths based on a comparison of the response times associated with the responses to the first type of packets to a threshold and based on the state of network resources; and initiating, by the network device, a data transfer on the selected path. SCHUSTER et al. and AKAHANE et al., whether taken alone or in any reasonable combination, do not disclose or suggest this combination of features.

For example, SCHUSTER et al. and AKAHANE et al. do not disclose or suggest receiving, by the network device, responses on each of the plurality of paths in response to the plurality of reflector packets, and analyzing, by the network device, responses to the second type of packets to determine a state of network resources. The Examiner admits that SCHUSTER et al. does not disclose "receiving acknowledgments on each of the plurality of paths in response to the plurality of reflector packets" and "analyzing responses to the second type of packets to determine a state of network resources" and relies on paragraph 0053 and Fig. 4 of AKAHANE et al. for allegedly disclosing these features (final Office Action, pp. 3 and 9). Applicant submits that neither this section nor any other section of AKAHANE et al. discloses the above features of claim 43, amended as proposed.

At paragraph 0053, AKAHANE et al. discloses:

> Upon receipt of the path calculation & path setting request 605, the R11 performs a calculation (step 606) with the requested bandwidth 93 and end point router

> identifier 94 in the path calculation & path setting request message 90 to determine whether a new path can be set between the R11 and R12 to acquire the requested bandwidth 93 (FIG. 4). In the presently preferred embodiment, the above calculation is performed using an OSPF process extended for traffic engineering or a traffic engineering database based on individual router link bandwidth information distributed by an IS-IS process and the Constrained Shortest Path Fast (CSPF) algorithm, which uses the above TE (traffic engineering) database to calculate the path for acquiring the requested bandwidth 93. Each router uses the OSPF process extended for traffic engineering or the IS-IS process to convey the link information accommodated by each router, such as the information about the available total bandwidth, reservable total bandwidth, and reservable-but-unreserved bandwidth. On the basis of these items of information, a TE database is then constructed within each router. In accordance with the TE database, each router uses the CSPF algorithm to calculate a path for acquiring the requested bandwidth. When the result of the above path calculation indicates that an existing path can acquire the requested bandwidth 93, the R11 uses a list of routers on the above path and issues a path setting request to router R13, which is located upstream one level (step 607) (FIG. 4).

This section of AKAHANE et al. discloses that a router R11 performs a calculation with information from a path calculation & path setting request message 90 to determine whether a new path can be set between the routers R11 and R12 for a requested bandwidth. This section of AKAHANE et al. further discloses that link information accommodated by each router can be conveyed to other routers and maintained by the other routers in calculating a path. This section of AKAHANE et al. does not disclose or suggest receiving, by the network device, responses on each of the plurality of paths in response to the plurality of reflector packets and analyzing, by the network device, the responses to the second type of packets to determine a state of network resources, as recited in claim 43, amended as proposed. In fact, this section of AKAHANE et al. appears to specifically teach away from these features by disclosing that routers maintain link information for other routers. Thus, there appears to be no need for a network device of AKAHANE et al. to send a plurality of reflector packets on each of a plurality of paths, receive responses on each of the plurality of paths in response to the plurality of reflector packets, and analyze the responses to the second type of packets (the packets used to perform at least one control-related function) to determine a state of network resources.

Fig. 4 of AKAHANE et al. depicts a request routing process in which a router R11 redirects a user terminal's data request to an approximate delivery server (see, for example, paragraph 0046). Fig. 4 of AKAHANE et al. depicts a path setting response 609 that is transmitted between a router R12 and a router R13, a path setting response 610 that is transmitted between router R13 to a router R11, and a path calculation & path setting response 611 from router R11 to a request router RR1. Applicant submits that none of these individual response messages (each of which is received by a different router) can reasonably be construed as responses received on each of the plurality of paths in response to a plurality of reflector packets. Thus, this section of AKAHANE et al. does not disclose or suggest receiving, by the network device, responses on each of the plurality of paths in response to the plurality of reflector packets and analyzing, by the network device, the responses to the second type of packets to determine a state of network resources, as recited in claim 43, amended as proposed.

If this rejection is maintained, Applicant respectfully requests that the Examiner explain which of the response messages depicted in Fig. 4 of AKAHANE et al. can reasonably be construed as corresponding to the recited responses to the second type of packets.

Therefore, even if AKAHANE et al. were combined with SCHUSTER et al., such a combination could not fairly be construed to disclose receiving, by the network device, responses on each of the plurality of paths in response to the plurality of reflector packets and analyzing, by the network device, the responses to the second type of packets to determine a state of network resources, as recited in claim 43, amended as proposed. Further, even if for the sake of argument, the combination of the AKAHANE et al. with SCHUSTER et al. could fairly be construed to disclose each of the features of claim 43, Applicant asserts that the reasons for combining the AKAHANE et al. with SCHUSTER et al. do not satisfy the requirements of 35 U.S.C. § 103.

For example, with respect to the reasons for combining AKAHANE et al. with SCHUSTER et al., the Examiner alleges (Office Action, pp. 9-10):

> It would have been obvious for one of ordinary skill in the art at the time of the invention, when presented with the work of Akahane et al., to combine Using a second type of packet used to perform a control related function, analyzing responses to the second type of packet to determine a state of network resources, and selecting a label switched path based on the state of network resources, as suggested by Akahane et al., with the system and method of Schuster et al., with the motivation being to allow an optimal network path to be selected for routing data.

Applicant submits that the Examiner's allegation is merely a conclusory statement of an alleged benefit of the combination. Such conclusory statements have been repeatedly held to be insufficient for establishing a *prima facie* case of obviousness. In this respect, Applicant relies upon KSR International Co. v. Teleflex Inc., 550 U.S. _____ (April 30, 2007) (citing In re Kahn, 441 F.3d 977, 988 (Fed. Cir. 2006)), where it was held that rejections on obviousness grounds cannot be sustained by mere conclusory statements;

instead, there must be some articulated reasoning with some rational underpinning to support the legal conclusion of obviousness.

Furthermore, the Examiner does not explain how incorporating AKAHANE et al.'s path setting response messages into SCHUSTER et al.'s system for adjusting billing for real time media transmissions would allow for an optimal network path to be selected, as the Examiner alleges. Thus, the Examiner has not provided the articulated reasoning required by KSR.

Since SCHUSTER et al. and AKAHANE et al. do not disclose or suggest receiving, by the network device, responses on each of the plurality of paths in response to the plurality of reflector packets and analyzing, by the network device, the responses to the second type of packets to determine a state of network resources, SCHUSTER et al. and AKAHANE et al. cannot disclose or suggest selecting, by the network device, one of the plurality of paths based on a comparison of the response times associated with the responses to the first type of packets to a threshold and based on the state of network resources, as also recited in claim 43, amended as proposed.

For at least the foregoing reasons, Applicant submits that claim 43 is patentable over SCHUSTER et al. and AKAHANE et al., whether taken alone or in any reasonable combination. Accordingly, Applicant respectfully requests that the Examiner reconsider and withdraw the rejection of claim 43 under 35 U.S.C. § 103(a) based on SCHUSTER et al. and AKAHANE et al.

Claims 44, 49, 50, and 53 depend on claim 43. Therefore, Applicant submits that these claims are patentable over SCHUSTER et al. and AKAHANE et al., whether taken alone or in any reasonable combination, for at least the reasons given above with respect to claim 43. Accordingly, Applicants respectfully request that the Examiner reconsider and withdraw the rejection of claims 44, 49, 50, and 53 under 35 U.S.C. § 103(a) based on SCHUSTER et al. and AKAHANE et al.

Independent claim 46, amended as proposed, recites features similar to (yet possibly of different scope than) features described above with respect to claim 43. Therefore, Applicant submits that claim 46 is patentable over SCHUSTER et al. and AKAHANE et al., whether taken alone or in any reasonable combination, for at least reasons similar to reasons given above with respect to claim 43.

Claims 47, 48, and 54 depend on claim 46. Therefore, Applicant submits that these claims are patentable over SCHUSTER et al. and AKAHANE et al., whether taken alone or in any reasonable combination, for at least the reasons given above with respect to claim 46. Accordingly, Applicants respectfully request that the Examiner reconsider and withdraw the rejection of claims 47, 48, and 54 under 35 U.S.C. § 103(a) based on SCHUSTER et al. and AKAHANE et al.

Independent claim 51, amended as proposed, recites features similar to (yet possibly of different scope than) features described above with respect to claim 43. Therefore, Applicant submits that claim 51 is patentable over SCHUSTER et al. and AKAHANE et al., whether taken alone or in any reasonable combination, for at least reasons similar to reasons given above with respect to claim 43.

Claims 2-4, 7, 8, 10, and 12 depend on claim 51. Therefore, Applicant submits that these claims are patentable over SCHUSTER et al. and AKAHANE et al., whether taken alone or in any reasonable combination, for at least the reasons given above with respect to claim 51. Accordingly, Applicants respectfully request that the Examiner reconsider and withdraw the rejection of claims 2-4, 7, 8, 10, and 12 under 35 U.S.C. § 103(a) based on SCHUSTER et al. and AKAHANE et al.

Independent claim 52, amended as proposed, recites features similar to (yet possibly of different scope than) features described above with respect to claim 43. Therefore, Applicant submits that claim 52 is patentable over SCHUSTER et al. and AKAHANE et al., whether taken alone or in any reasonable combination, for at least reasons similar to reasons given above with respect to claim 43.

Claims 17, 18, 20-22, 24, 26, and 27 depend on claim 52. Therefore, Applicant submits that these claims are patentable over SCHUSTER et al. and AKAHANE et al., whether taken alone or in any reasonable combination, for at least the reasons given above with respect to claim 52. Accordingly, Applicants respectfully request that the Examiner reconsider and withdraw the rejection of claims 17, 18, 20-22, 24, 26, and 27 under 35 U.S.C. § 103(a) based on SCHUSTER et al. and AKAHANE et al. Moreover, these claims are patentable over SCHUSTER et al. and AKAHANE et al. for reasons of their own.

For example, claim 27 recites that the method is performed partially in a client and partially in an admission control facility. The Examiner relies on col. 14, lines 35-53, of SCHUSTER et al. for allegedly disclosing that "the method is performed between an admission control facility of the service provider and a client receiving device" (final

Office Action, p. 11). Applicant submits that this allegation does not address the above feature of claim 27.

Claim 27 does not recite that the method is performed between two different devices. Instead, claim 27 specifically recites that the method is performed partially in a client and partially in an admission control facility. The Examiner's allegation does not address this feature of claim 27. Accordingly, a *prima facie* case of obviousness has not been established with respect to claim 27.

Nevertheless, at col. 14, lines 35-53, SCHUSTER et al. discloses:

> According to another aspect of a preferred embodiment, delay and/or jitter measurements may be used to select a route for transmission of a real-time media signal. This route may be defined as a particular network, a particular transmission path into and/or within a given network, or any other transmission path that could be used to carry or convey all or part of a real-time media transmission all the way or part of the way between a sending device and a receiving device. By way of example, without limitation, the transmission path could be a service provider (e.g., one ISP versus another), a network (e.g., packet-switched and/or circuit switched), part of a network, a backbone to a network (e.g., backbones to the Internet provided by telecommunications service providers such as Sprint, AT&T and MCI), access to a backbone (e.g., through a LAN or a cable modem, etc.), a bridge between networks, a hop in a network, a processing device (e.g., a switch and/or a router) on a network, or a direct link between the sending and receiving devices.

This section of SCHUSTER et al. discloses different types of transmission paths where delay and/or jitter measurements can be used. This section of SCHUSTER et al. does not relate to where processing is performed. Thus, this section of SCHUSTER et al. does not disclose or suggest that the method, as recited in claim 52, is performed partially in a client and partially in an admission control facility, as recited in claim 27.

The disclosure of AKAHANE et al. does not remedy the above deficiency in the disclosure of SCHUSTER et al.

For at least the foregoing reasons, Applicant submits that claim 27 is patentable over SCHUSTER et al. and AKAHANE et al., whether taken alone or in any reasonable combination. Accordingly, Applicant respectfully requests that the Examiner reconsider and withdraw the rejection of claim 27 under 35 U.S.C. § 103(a) based on SCHUSTER et al. and AKAHANE et al.

Rejection under 35 U.S.C. § 103(a) based on SCHUSTER et al., AKAHANE et al., and KAFFINE et al.

Claims 5, 19, and 45 stand rejected under 35 U.S.C. § 103(a) as allegedly unpatentable over SCHUSTER et al. in view AKAHANE et al., and further in view of KAFFINE et al. Applicant respectfully traverse this rejection.

Claim 5 depends from claim 4. While not acquiescing in the rejection of claim 5, Applicant submits that the disclosure of KAFFINE et al. does not remedy the deficiencies in the disclosures of SCHUSTER et al. and AKAHANE et al. set forth above with respect to claim 4. Therefore, Applicant submits that claim 5 is patentable over SCHUSTER et al., AKAHANE et al., and KAFFINE et al., whether taken alone or in any reasonable combination, for at least the reasons given above with respect to claim 4. Accordingly, Applicant respectfully requests that the Examiner reconsider and withdraw the rejection of claim 5 under 35 U.S.C. § 103(a) based on SCHUSTER et al., AKAHANE et al., and KAFFINE et al.

Claim 19 depends from claim 18. While not acquiescing in the rejection of claim 19, Applicant submits that the disclosure of KAFFINE et al. does not remedy the deficiencies in the disclosures of SCHUSTER et al. and AKAHANE et al. set forth above with respect to claim 18. Therefore, Applicant submits that claim 19 is patentable over SCHUSTER et al., AKAHANE et al., and KAFFINE et al., whether taken alone or in any reasonable combination, for at least the reasons given above with respect to claim 18. Accordingly, Applicant respectfully requests that the Examiner reconsider and withdraw the rejection of claim 19 under 35 U.S.C. § 103(a) based on SCHUSTER et al., AKAHANE et al., and KAFFINE et al.

Claim 45 depends from claim 43. While not acquiescing in the rejection of claim 45, Applicant submits that the disclosure of KAFFINE et al. does not remedy the deficiencies in the disclosures of SCHUSTER et al. and AKAHANE et al. set forth above with respect to claim 43. Therefore, Applicant submits that claim 45 is patentable over SCHUSTER et al., AKAHANE et al., and KAFFINE et al., whether taken alone or in any reasonable combination, for at least the reasons given above with respect to claim 43. Accordingly, Applicant respectfully requests that the Examiner reconsider and withdraw the rejection of claim 45 under 35 U.S.C. § 103(a) based on SCHUSTER et al., AKAHANE et al., and KAFFINE et al.

Conclusion

In view of the foregoing amendments and remarks, Applicant respectfully request reconsider and withdraw the outstanding rejections, and the timely allowance of the pending claims. Applicant respectfully requests that this proposed amendment under 37 C.F.R. § 1.116 be entered, because the proposed amendment does not raise new issue or require an additional search of the art. Moreover, Applicant submits that the proposed amendment places the present application in better condition for appeal, should the Examiner continue to contest the patentability of the claims.

As Applicant's remarks with respect to the Examiner's rejections are sufficient to overcome these rejections, Applicant's silence as to assertions by the Examiner in the Office Action or certain requirements that may be applicable to such assertions (e.g., whether a reference constitutes prior art, reasons to modify a reference and/or to combine references, assertions as to dependent claims, etc.) is not a concession by Applicant that such assertions are accurate or such requirements have been met, and Applicant reserves the right to analyze and dispute such assertions/requirements in the future.

To the extent necessary, a petition for an extension of time under 37 C.F.R. § 1.136 is hereby made. Please charge any shortage in fees due in connection with the filing of this paper, including extension of time fees, to Deposit Account No. 50-1070 and please credit any excess fees to such deposit account.

Respectfully submitted,

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